



UNIVERSAL SERVICE PUMP TYPE AU - GEAR SIZE 47

AU

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This is a general specification leaflet; for specific applications not covered herein, contact Suntec.

The SUNTEC AU oil pump is specially designed for the replacement market: the AU 47 replaces most AS 47 and AL 35 models. It incorporates a blocking solenoid valve (AL type) with in-line cut-off function and it features two nozzle possible outlets.

APPLICATIONS

- Light oil and kerosene.
- One or two-pipe system.

SPECIAL FEATURES

- **Choice of nozzle outlet connection on either side** (right or left).
- **Proven quality and performance of Suntec "A" pumps with press-fit gear drive** : the gear and shaft assembly allows no relative movement between the components and therefore eliminates wear when operating with kerosene fuel.

PUMP OPERATING PRINCIPLE

The gear set draws oil from the tank through the built-in filter and transfers it to the nozzle line via the cut-off solenoid valve . A pressure regulating valve (AL type) is used to dump all oil which is not required at the nozzle.

In two-pipe operation, the by-pass plug must be fitted in the return port, which ensures that the oil dumped by the regulating valve is returned to the tank and the suction line flow is equal to the gear set capacity.

In one-pipe operation (by-pass plug removed and return plugged), the oil which does not go through the nozzle line is returned directly to the gear inlet and the suction line flow is equal to the nozzle flow.

Bleed

Bleeding in two-pipe operation is assured by a bleed flat on the piston.

In one-pipe operation, the plug of a pressure gauge port must be loosened until the air is evacuated from the system.

Caution : The non-used nozzle outlet must be loosened, thoroughly bled and retightened, to obtain a perfect cut-off function.

Cut-off

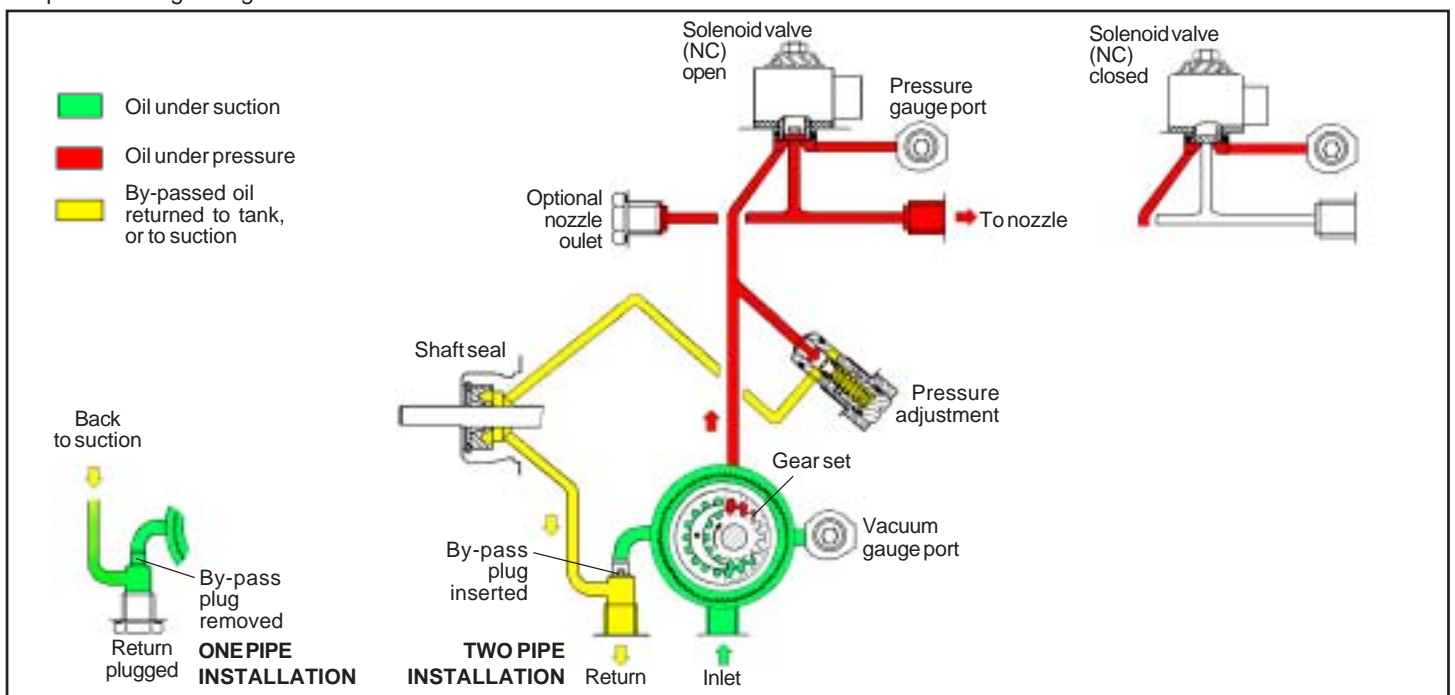
The solenoid valve of the AU pump is of the "normally closed" AL type and is situated in the nozzle line. This design ensures extremely fast response and the switching can be selected according to the burner operating sequence and is independant of motor speed. When the solenoid is non-activated, the valve is closed and all oil pressurised by the gear set passes through the regulator to suction or the return line, depending upon pipe arrangement.

As soon as the solenoid is activated, oil passes to the nozzle line at the pressure set by the pressure regulating valve.

PUMP IDENTIFICATION

(Not all model combinations are available
Consult your Suntec representative)

AU : pressure regulation, blocking solenoid valve with in-line cut-off function, two possible nozzle outlets.
 Gear set capacity (see pump capacity curve)
 Shaft rotation (seen from shaft end)
 R : clockwise rotation
 L : anti-clockwise rotation.
 Pumpserie
 8 : hub \varnothing 32 mm
 Modelnumber
AU 47 L 9 8 xx 6 P 05 00
 Revision number
 Installation
 P : by-pass plug inserted in return port for two-pipe operation
 Solenoid valve voltage
 05 : 220 - 240 V ; 50/60 Hz
 Connector cablelength
 00 : no cable



TECHNICAL DATA

General

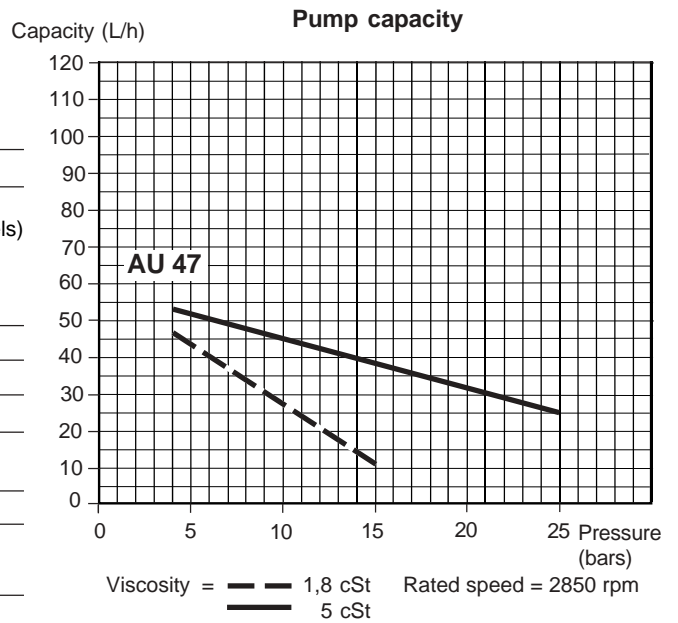
Mounting	Hub mounting according to EN 225
Connection threads	cylindrical according to ISO 228/1
Inlet and return	G 1/4 with facilities for conical sealing (on revision 6 models)
Nozzle outlets	G 1/8
Pressure gauge port	G 1/8
Vacuum gauge port	G 1/8
Valve function	Pressure regulation
Strainer	open area : 6 cm ² - opening size : 150 µm
Shaft	Ø 8 mm according to European standard EN 225
By-pass plug	inserted in return port for two-pipe system; to be removed with a 4 mm Allen key for one pipe system.
Weight	1,1 kg

Hydraulic Data

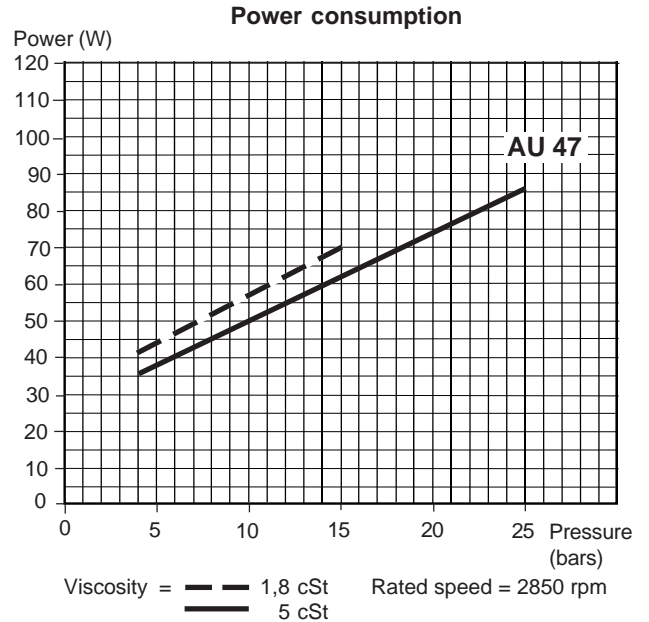
Nozzle pressure range	4 - 25 bars (light oil application) 4 - 15 bars (kerosene application)
Delivery pressure setting	9 bars
Viscosity range	1 - 12 cSt
Oil temperature	0 - 60°C max. in the pump
Inlet pressure	2 bars max.
Return pressure	2 bars max.
Suction height	0,45 bars max. vacuum to prevent air separation from oil
Rated speed	3600 rpm max.
Torque (@ 45 rpm)	0,10 N.m

Solenoid valve characteristics

Voltage	220 - 240 V; 50/60 Hz
Consumption	9 W
Ambient temperature	0 - 60°C
Maximum pressure	25 bars
Certified	TÜV Nr stamped on pump cover
Protection class	IP 54 according to EN 60529, when used with SUNTEC connector cable



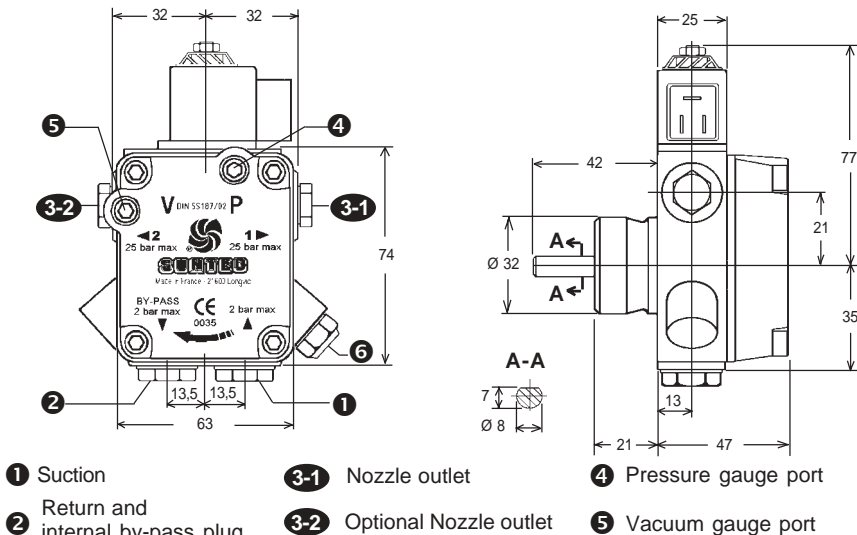
Data shown take into account a wear margin.
Do not oversize the pump when selecting the gear capacity.



Caution : When replacing an AS 47 or an AL 35 pump by an AU 47, take care of the inlet and return ports location. These ports may be inverted on the AU model with regard to the replaced model (refer to the arrows on the cover face of the pump). The use of oil lines with male fittings requiring sealing at the bottom of the port is compatible with AU revision 6 pump (this was not possible with previous revision 2 models).

DIMENSIONS

Example shows "L" rotation



Inlet **1** and Return **2**
with direct sealing for revision 6 models
(sealing with washers can also be used)

